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THE ROMANCE OF AN OLD BUREAU.

IN the summer of 1867, after a prolonged course of Russian steppes, Crimean hill-sides, Moscow churches, St Petersburg boulevards, Finnish lakes, and Swedish forests, I found myself at Berlin, and during the first week of my stay was busy from dawn to dusk in exhausting, with the systematic industry of the genuine British tourist, the various 'sights' of that methodical city, which Mr Murray's Koran, in red binding, politely defines as 'an oasis of brick amid a Sahara of dust,' and in studying all the minutiae of that pipe-clayed civilisation, which appears to advance, like the national army, in time to the music of the *Pas de Charge*. I had lounged beneath the shade of the broad-leaved lime-trees which have stood godfathers to the famous 'Unter den Linden Strasse'; I had strolled along the front of the palace, and taken off my hat to the noble statue of Father Fritz. In the shady galleries of the Royal Museum, I had day-dreamed for hours amid quaint antiquities and splendid pictures, and had lingered in the inmost room of all for a last look at the face of Frederick the Great—not as he was after the iron of the Seven Years' War had entered into his soul, but as he may have looked in the days of his fresh youth, before years of crafty diplomacy and merciless bloodshed had distorted him into the knave and tyrant that he afterwards became; a work still fresh from the hand of God—'Hope like a fiery pillar before him, the dark side not yet turned!'

Just as my lionising fever was beginning to abate, a slight service, rendered on a pouring wet day in the Park, brought me into closer relations with a pleasant-looking elderly German, who had frequently crossed my rambles, and more than once halted to exchange a few words with me, in the frank, open-hearted fashion of the hospitable Teutonic race. Our acquaintance, however, was still in embryo, when, on the day of which I am speaking, the old man, having taken shelter under a thinly foliated tree, was in a fair way to be

thoroughly drenched, when I came to the rescue with my umbrella. Observing that he had got wet through before gaining his impromptu refuge, I insisted upon taking him to my lodgings (which were close at hand), and drying him thoroughly before I let him go; his own residence, as I found on inquiry, being at a considerable distance. The old man's gratitude knew no bounds; and next morning he reappeared with a hospitable smile upon his broad face, announcing that he had told 'his folk' of my kindness to him, that his 'Haus-frau' and his 'kleine Gretchen' wished to thank me themselves—that, in short, I must come and eat tea-cakes with them that very evening, and smoke a German pipe afterwards, which Herr Holzmann, in common with the majority of his countrymen, regarded as the acme of human felicity. In order to secure himself against any evasion, he added, with a resolute air, that (as I might possibly lose my way) he would come and fetch me himself.

Punctual as death or a collector of water-rates, Herr Heinrich Holzmann presented himself at the time appointed, and marched me off in triumph to a neat, comfortable-looking little house on the southern side of the town, with a small garden in front of it. The garden was of the invariable German type; the same trim little flower-beds, accurate as regiments on parade; the same broad gravel-walk, laid out with mathematical regularity; the same trellis-work summer-house, festooned with creepers, at the farther end, and the same small table in the centre of it, surmounted by a corpulent teapot of truly domestic proportions, presided over, in this case, by two female figures; who, on our approach, come forward to greet us, and are introduced to me by my host as his wife and daughter.

Frau Holzmann (or, as her husband calls her, 'Lieschen'*) is a buxom, motherly, active-looking woman, apparently about fifty years of age, with that snug, fireside expression (suggestive of hot tea-cakes and well-aired sheets), characteristic of the well-to-do German matron; but a close

* De Quincey on Coleridge.

* The German diminutive of Elizabeth.

observer may detect on that broad, smooth forehead, on those round, rosy cheeks, the faint but indelible impress of former trials and sufferings; and through the ring of her voice, full and cheery though it is, runs an under-tone of melancholy, that would seem to tell of a time in the far distant past when such sadness was only too habitual. The daughter, Margarethe (or Gretchen, as her parents call her), who may be about eighteen, is one of those plump, melting damsels, with china-blue eyes and treacle-coloured hair, who never appear without a miniature of Schiller on their neck, and a paper of prunes in their pocket, and who, after flowing on for a whole evening in a slow, steady, canal-like current of sentiment, will sup upon sucking-pig and apricot jam with an appetite of which Dando the Oyster-eater might have been justly proud. Both welcome me with true German cordiality, and overwhelm me with thanks for my courtesy to the head of the family, reproaching him at the same time for bringing me in before they have completed their preparations, and made everything comfortable for me; to give time for which operation, Herr Heinrich marches me into a trim little dining-room opening upon the garden, and thrusts me simultaneously into an easy-chair and a pair of easy-slippers, while I take a hasty survey of the chamber into which I have been thus suddenly ushered.

It is one of those snug, cosy little rooms, spotless in cleanliness, and faultless in comfort, immortalised by Washington Irving in his description of the Dutch settlements in North America. The floor is polished like a mirror; the tasteful green and white paper (which looks delightfully fresh this sultry weather) seems as fresh as the day it was put on; while the broad, well-stuffed sofa, which takes up nearly one whole side of the room, seems just made for the brawny beam-ends of some portly German burgher, or the restless roly-poly limbs of his half-dozen big babies. Above the chimney-piece (along which stand the usual china shepherdesses, 'Presents from Dresden,' and busts of Goethe and Schiller) hangs a staring, highly-coloured medley of fire, smoke, blue and white uniforms, rearing horses, and overturned cannon, which some crabbed Teutonic letters beneath it proclaim to be 'Die Schlacht bei Königgrätz, 3 Juli 1866;' while facing it from above the sofa is a rather neatly-done water-colour likeness of a chubby, fair-haired lad, in an infantry uniform, whom I rightly guess to be my host's soldier-son Wilhelm (a household word in his father's mouth), now on garrison duty at Spandau.

But the object which specially attracts my attention is a tall, grim bureau of dark oak in the farther corner beyond the fire-place, decorated with those quaint old German carvings which carry one back to the streets of Nuremberg and the house of Albrecht Dürer. There stand Adam and Eve in all their untrammelled freedom, shoulder to shoulder, like officers in the centre of a hollow square, with all the beasts of the earth formed in close order around them, and the Tree of Knowledge standing up like a sign-post in the rear. There the huge frame of Goliath, smitten by the fatal stone, reels over like a falling tower, threatening to crush into powder the swarm of diminutive Philistines who are hopping about in the background. There appear the chosen Twelve, with faces curiously individualised, in

spite of all the roughness of the carving, and passing through every gradation, from the soft womanly features of the beloved disciple to the bearded, low-browed, ruffianly visage of him 'which also was the traitor.' And there the persecutor Saul, not yet transformed into Paul the Apostle (sheathed in steel from top to toe, armed with a sabre that might have suited Bluebeard himself, and attended by a squadron of troopers armed cap-a-pie), rides at full gallop past the gates of Damascus on his errand of destruction.

'That bureau must be a very old one,' remark I tentatively.

'It is indeed—but *that's* not why we value it,' answers the old man with kindling eyes. 'That bureau is the most precious thing we have; and there's a story attached to it, which will never be forgotten in our family, I'll answer for it. I'll tell you the story one of these days, but not to-night; for we mustn't spoil our pleasant evening by any sad recollections. And here, in good time, comes Lieschen to tell us that tea's ready.'

I will not tantalise my readers with a catalogue of the good cheer which heaped the table; suffice it to say, the meal was one that might have tempted the most 'notorious evil liver' that ever returned incurable from Calcutta; and seasoned with a heartiness of welcome which would have made far poorer fare acceptable. Fresh from reminiscences of *Hermann und Dorothea*, I could almost have imagined myself in the midst of that finest domestic group of the great German artist. The hearty old landlord of the *Golden Lion*, and his 'kluge verständige Hausfrau,' were before me to the life; the blue-eyed Mädchen, who loaded my plate with tea-cakes, might (with a little addition of height and dignity) have made a very passable Dorothea; while 'brother Wilhelm,' had he been there, would have represented my ideal Hermann fairly enough. Nor was the 'friendly chat' wanting to complete the picture. The old man, warming with the presence of a new listener, launched into countless stories of his soldier-son, who, young as he was, had already smelt powder on more than one hard-fought field, during the fierce short fever of the Seven Weeks' War. Frau Lisbeth, who was an actual mine of those quaint old legends which are nowhere more perfect than in Germany, poured forth a series of tales which would have made the fortune of any 'Christmas Number' in Britain; while the young lady, though rather shy at first, shook off her bashfulness by degrees, and asked a thousand questions respecting the strange regions which I had recently quitted; the sandy wastes of the Volga, and the voiceless solitudes of the Don—the relics of former glory which still cling around ancient Kazan—wicker-work shanties inhabited by brawling Cossacks, and Crimean caverns tenanted by Tartar peasants—battered Kertch and ruined Sevastopol—Odessa with her sea-fronting boulevard, and sacred Kiev, with her dim catacombs and diadem of gilded towers—the barbaric splendour of ancient Moscow, and the imperial beauty of queenly Stockholm. It was late in the evening before I departed, which I was not allowed to do without promising, once and again, not to be long of returning.

And I kept my word; for the quiet happiness of this little circle, so simple and so open-hearted, was a real treat to a restless gad-about like myself. Before the month was at an end, I had strolled

round the town with Herr Holzmann a dozen times; I had partaken fully as often of Frau Lisbeth's inexhaustible tea-cakes; and I had presented Fräulein Margarethe, on the morning of her eighteenth birthday, with a pair of Russian ear-drops, accompanying my gift (as any one in my place might well have done) by a resounding kiss on both cheeks, which the plump little Mädchen received as frankly as it was given. But the relentless divinity of the scythe and scalp-lock, who proverbially waits for no man, at length put a period to my stay in Berlin; and one evening, a few days before my departure, I reminded Herr Heinrich of his promise to tell me the history of the old bureau which had attracted my attention. The old man, nothing loath, settled himself snugly in the ample corner of the sofa, fixed his eyes upon the quaint old piece of furniture which formed the theme of his discourse, and began as follows: *

'You must know, then, mein Herr, that in the year '52 business began to fall off rather with me (I was a cabinetmaker, you remember), and from bad it came to worse, till I thought something should really be done to put matters to rights. Now, just about this time, all manner of stories were beginning to go about of the high wages given to foreign workmen in Russia, and the heaps of money that sundry Germans, who had gone there from Breslau and Königsberg, and elsewhere, were making in St Petersburg and Moscow. And so I pondered and pondered over all these tales, and over the plight I was in, till at last I began to think of going and trying my luck as well as the rest. My wife and I talked it over, and settled that it should be done; and we were just getting ready to start, when one night a message came that my old uncle, Ludwig Holzmann of the Friedrich-Strasse (who had taken offence at my marriage, and never looked near me since) was dying, and wanted to see me immediately. So away I went (my wife wanted to come too; but I thought she had better not); and when I got there, I found the old man lying in a kind of doze, and nobody with him but the doctor and the old pastor, who lived close by. So I sat down to wait till he awoke; and sure enough, in about half-an-hour, his eyes opened, and fell full upon me. He raised himself in bed—I think I see him now, with the lamplight falling on his old withered face, making it look just like one of the carvings on the old bureau, which stood at the foot of the bed—and said in a hoarse whisper: "Heinrich, my lad, I've not forgotten thee, although the black cat has been between us a bit lately. When I'm dead, thou'lt have that bureau yonder; *there's more in it than thou think'st*." And he sank back with a sort of choking laugh, that twisted his face horribly. Those were his last words; for after that, he fell into a kind of stupor, and died the same night.

'When his property came to be divided, every one was surprised; for they had all thought him much richer. I got the bureau, just as he said; and, remembering his words about it, we ransacked all the drawers from end to end; but found nothing except two or three old letters and a roll of tobacco; so we made up our minds that he must either have

been wandering a little, or else that (God forgive him!) he had wanted to play us one more trick before he died. In a few weeks more, all was ready for our going, and away we went to St Petersburg.

'When we got there, we found it not at all such a land of promise as the stories made it out; but still there *were* good wages for those who could work; and for the first year or two, we got on well enough. But after a time, in came a lot of French fellows, with new-fangled tricks of carving that pleased the Russian gentry more than our plain German fashions; and trade began to get slack, and money to run short. Ah! mein Herr, may you never feel what it is to find yourself sinking always lower and lower, work as hard as you like, and one trouble coming on you after another, till it seems as if God had forgotten you!

The old hero's voice quivered with emotion, and an unwonted tremor disturbed the placid countenance of his wife, while even the sunny face of the little Fräulein looked strangely sad.

'Well, mein Herr, we struggled on in this way for two years longer, hoping always that our luck would turn, and putting the best face we could on it; though many a time, when the children came to ask me why I never bought them pretty things now as I used to do at home, I could almost have sat down and cried. At last the time came when we could stand against it no longer. There was a money-lender close by us, from whom we had borrowed at higher interest than we could afford, who was harder upon us than any one (may it not be laid to his charge hereafter!); and he, when he saw that we were getting behind with our payments, seized our furniture, and announced a sale of it by auction. I remember the night before the sale as if it were yesterday. My boy Wilhelm was very ill just then, and no one knew whether he would live or die; and when my wife and I sat by his bed that night, and looked at each other, and thought of what was to come, I really thought my heart would have broken.—Ah! my Lisbeth, we have indeed been in trouble together!

As he uttered the last words, the old man clasped fervently the broad brown hand of his wife, which returned the pressure with interest; and after a slight pause he resumed thus:

'On the morning of the sale, a good many people assembled; and among the rest came the district inspector of police. He was a kind man in his way, and had given me several little jobs to do when I first came over; but he was not very rich himself, and nobody could blame him for not helping us, when he had his own family to think of. However, I've no doubt he came to our sale in perfect good faith, meaning to give the best price he could for what he bought. Well, in he came; and the first thing that caught his eye was the old bureau, which stood in a corner of the room. It seemed to take his fancy, and he went across to have a nearer view of it. He began trying the grain of the wood—drawing his nail across one part, rapping another with his knuckles—till all at once I saw him stop short, bend his head down as if listening, and give another rap against the back of the bureau. His face lighted up suddenly, as if he had just found out something he wanted to know; and he beckoned me to him. "Do you know whether this bureau of yours has a secret spring anywhere about it?" asked he;

* The main facts of the following story, improbable as they may seem, are literally true, and may be found in the St Petersburg Police Reports of the current year.

"for the back seems to be hollow." I said I had never noticed anything of the sort—nor, indeed, had I; for when we found that the drawers were empty, we looked no farther. Now, however, he and I began to search in good earnest; and at last the inspector, who had had plenty of practice in such work since he entered the police, discovered a little iron prong, almost like a rusty nail, sticking up from one of the carved figures. He pressed it, and instantly the whole top of the bureau flew up like the lid of a box, disclosing a deep hollow, in which lay several packets of bank-notes and government shares; about a dozen rouleaux of gold Fredericks, tightly rolled up in cotton; and two or three jewel-cases, filled with valuable rings and bracelets—the whole amounting, as we afterwards calculated, to more than twenty thousand Prussian thalers!

'Well, you may think how we felt, saved as we were in this uttermost strait by a kind of miracle; and how we blessed the name of my old uncle, when we saw how truly he had spoken. The inspector (God bless him!) refused to touch a *pennig* of the windfall, saying that he was sufficiently rewarded by seeing so many good people made happy; so we paid our debts, packed up all that we had, and came back to our own folk and our own fatherland, never to leave it again. Ay, mein Herr, we have indeed been wonderfully helped.'

And, almost unconsciously, the old man broke into the opening words of Luther's grand old psalm—the same which the pious soldiers of Frederick the Great chanted in the bleak December morning, when they went forth, one man against three, to turn to flight the armies of the alien:

A tower of strength our God doth stand,
A trusty shield and weapon.*

Too deeply interested to break, by further conversation, the charm of this noble romance of real life, I took my leave, and (except a hasty farewell visit two days later) never saw the Holzmänn family again; but the story which they left me I have not forgotten, and can never forget.

IS THE WORLD ROUND?

We hope our readers will not think us demented for asking the above question; but Mr John Hampden (or 'Parallax') has recently backed his opinion to the contrary by a sum of five hundred pounds; and an interesting experiment has taken place. This gentleman, in 1865, published a book to prove that the earth is a *plane*, without motion, and unaccompanied by anything in the firmament analogous to itself. The whole question turns on the convexity of water, for if the earth is a globe, and twenty-five thousand miles in circumference, the surface of all standing water must have a certain degree of convexity; every part must be an arc of a circle, rising at the rate of about eight inches per mile; and in every succeeding mile, eight inches multiplied by the square of the distance. Mr Hampden says he tried the following experiment. In the Old Bedford Canal, Cambridgeshire, a boat and flag was directed to sail from Welney Bridge, and remain at Welche's Dam, six

miles distant. Mr Hampden, with a telescope, placed himself in the water as a bather, with his eye not exceeding eight inches above the surface. The flag and the boat down to the water's edge were clearly visible throughout the whole distance, so that he concluded if the surface of the water had risen as above mentioned, he could not have seen the boat at all. We have neither the space nor the inclination to follow Mr Hampden in the far-fetched theories contained in his volume. Suffice it to say that this gentleman offered to stake five hundred pounds on his theory; and Mr A. R. Wallace accepted the challenge, offering, in like manner, to stake five hundred pounds upon the issue, and agreeing to 'prove the convexity or curvature of the surface of a canal, river, or lake.' The spot chosen was that portion of the Old Bedford Canal between Old Bedford Bridge and Welney Bridge, a distance of six miles in a straight line.

The experiment came off March 5, 1870; and an oblong signal, six feet by three, was placed on Old Bedford Bridge, its centre being thirteen feet four inches above the water. At three miles' distance along the canal (we quote from the report of Mr Carpenter, Mr Hampden's referee), a staff was erected, having a red disc of wood one foot in diameter affixed to it, the centre of which was also thirteen feet four inches above the water; and on Welney Bridge, three miles farther, a third signal was placed, reaching the top of the bridge, thirteen feet four inches likewise above the water. The observations were made by means of a large telescope (four-inch object-glass), and also by means of a sixteen-inch Troughton level, placed in the same position and height above the water as the large achromatic. On the central signal-staff there was a red disc, which was allowed to remain nine feet four inches above the water, or four feet lower than the other.

Now the result was, that in each of these observations, one taken from Welney Bridge, and the other from Old Bedford Bridge, with the large achromatic telescope, the two discs of the central staff appeared in each case above the other bridge, shewing that the signal-staff in the centre was higher, and thus proving the convexity of the water. Similar results appeared with the telescope of a sixteen-inch Troughton level, placed in the same position. The umpires, of course, could not agree, and the editor of the *Field* was called in as referee. He decided that Mr Wallace, by means of the experiment agreed on, has proved to his satisfaction the 'curvature to and fro' of the Bedford Canal to the extent of five feet more or less. He therefore paid Mr Wallace the one thousand pounds that had been lodged at Coutts's Bank.

Mr Wallace, in a letter to the *Field* (April 2, 1870), commenting on Mr Carpenter's remarks in his Report, says that that gentleman objects to the value of the view in the large telescope 'because it shewed but two points, when a comparison had to be instituted between three; but he omits to state that the telescope itself was placed accurately at the third point, just as was the spirit-level telescope—to the view shewn by which he makes no objection. The views from both extremities of the six miles agreeing so closely, both prove the very great accuracy of the level used, and that it may be depended upon to shew that the surface of water does really sink below the true level line in

* Ein feste Burg ist unser Gott,
Ein gutes Wehr und Waffen.

a continually increasing degree as the distance is greater; but the proof of convexity in no way depends on this accuracy, as it was shewn still better by the large telescope without a spirit-level. The curvature shewn by the large telescope is about five and a half feet at the middle signal, three miles distant; equal to eleven feet, if measured at the farther signal; and the depression below the cross hair or true level line being, according to Mr Carpenter, an equal amount, makes twenty-two feet in all, leaving less than two feet for refraction to bring it to the full theoretical amount, which is something less than twenty-four feet. The three points deviated in a vertical direction very nearly as much as is required by the assumed dimensions of the earth, so that we may conclude that the level telescope line is a tangent to a circle, approximately the circle of the earth. Mr Vernon says, if the telescope in this experiment had been laid exactly at right angles to a plumb-line dropped from its centre, it would have been found that the surface of the water three miles off was six feet, and at six miles, twenty-four feet, lower than the water at the spot where the observation was made.

Of course Mr Hampden was not satisfied with the result, and still asserts that the surface of water is as flat as any billiard-table in the metropolis; and in an angry letter to the *Field*, he tells the editor that if he touches the money to hand it to Mr Wallace, he will serve them both with a writ for conspiring to obtain money on false pretences.

Mr J. N. Hearder of Plymouth tells us that 'Parallax' some years ago visited Plymouth, and in his lectures asserted that the rock upon which the Eddystone Lighthouse is built, and which is about sixteen miles from the shore, could be seen as distinctly from the beach under the Hoe as it could from the top of the Hoe itself, an elevation of about eighty feet. Several gentlemen agreed to meet on the Hoe to test the experiment. The Eddystone Lighthouse is about eighty feet high, and is built on a rock which is nearly covered at high-water. The building is surmounted by a lantern, which occupies some ten or twelve feet of its upper portion, and the remainder of the structure is painted in different coloured bands; so that, as Mr Hearder remarks, it formed an admirable object for the purpose of this experiment. A telescope was fixed on the top of the Hoe at the height of about eighty-four feet from the level of the sea below, to correspond with the height of the Eddystone, sixteen miles off. From this, the whole of the Eddystone and its rock were distinctly visible. But when the telescope was removed ten or twelve feet lower, the rocks were invisible; and in proportion as the telescope was removed lower and lower, band after band of the body of the building sank below the horizon, till at last, ten feet above the water's edge, nothing could be seen but the lantern. Five feet lower, the lantern itself disappeared. 'Parallax' being asked to account for this, said it was due to the undulations of the waves; but the day was so fine, that small vessels could be seen on the horizon with the naked eye, and the breeze was very slight, and did not produce waves sufficient to prevent the observers from standing within an average distance of three feet from the edge of the water on the beach. On the same occasion, several vessels were watched, some of which, leaving the shore, could be seen gradually to descend below the horizon, until the hull, and

even half the rigging, were out of sight to all the observers but 'Parallax,' who always protested he could see the hull as plainly as before.

Homer considered the world as flat. Mr Gladstone, in his *Studies of Homer and the Homeric Age*, states that in Homer's estimation the form of the world was not circular, but oval, having a shorter diameter from east to west than from north to south. In the map he gives, it is in the form of a parallelogram with rounded edges, like the oblong shield then in use. The merit of the discovery of the spherical form of the earth is due to the Pythagoreans, who came to the conclusion from astronomical observations; but it is uncertain whether Pythagoras was himself aware of this truth. It was not received generally in Greece until the age of Plato. The Arabs speculated on the spherical form of the globe, and the calif Almamoun, in 814 A.D., ordered the measurement of a degree in the plains of Mesopotamia, which, at a much later period, was imitated by Snellius in Holland, and Norwood in England. The length of degrees of the meridian in different latitudes gives the form and size of the earth. Eleven arcs have been measured in Europe, one in the Andes, two in the East Indies. No two of these yielded the same result, shewing the slightly irregular form of the earth. Mrs Somerville, in her *Physical Geography*, points out that the dip or depression of the horizon is, in round numbers, a fathom for every three miles of distance; that is to say, an object a fathom or six feet high would be hid by the curvature of the earth at the distance of three miles. Since the dip increases as the square, a hill one hundred fathoms high would be hid at the distance of ten miles. Another mode of determining the form of the earth is by the oscillations of the pendulum. Its descent, and consequently its oscillations, are accelerated in proportion to the force of gravitation, which increases from the equator to the poles. Experiments have been made at various places, but no two sets give exactly the same results. The method employed for measuring arcs of the meridian, and that of deducing the form of the earth from the oscillations of the pendulum, are given in the sixth section of Mrs Somerville's *Connection of the Physical Sciences*, eighth edition. Of course, all this will be nonsense to 'Parallax;' but we may be well content to leave the matter in the hands of all thinking men.

BRED IN THE BONE.

CHAPTER IX.—IN BLOOMSBURY.

It was the evening of the day after Yorke had listened to his own biography, and night had long fallen upon the shivering woods of Crompton; the rain fell heavily also upon roof and skylight with thud and splash. It was a wretched night even in town, where man has sought out so many inventions to defy foul weather and the powers of darkness. The waste-pipes could not carry off the water from the houses fast enough, choke and gurgle as they would; the contents of the gutters overflowed the streets; and wherever the gas-lights shone, was reflected a damp glimmer. In a large room on the ground floor of Rupert Street, Bloomsbury, sat a woman writing, and undisturbed by the

dull beating of the rain without. She often raised her head, intermitted her occupation, and appeared to listen; but it was to the voices of her Past that she was giving heed, and not to the ceaseless patter of the rain. What power they have with us, those voices! While they speak to us, we hear nothing else; we know of nothing that is taking place; there is no Present at all; we are living our life again. If purely, so much the better for us; if vilely, viciously, there is no end to the contaminating association. It is to escape this that some men work, and others pray. The furniture of the room was peculiar to the neighbourhood; massive, yet cheap. It had been good once; but long before it came into the hands of her who now owned it. There was the round bulging looking-glass; the sideboard was adapted for quite a magnificent show of plate and tankards—only there were none; a horse-hair sofa, from which you would have seen the intestines protruding, had it not been for the continuous gloom. If the sun ever visited Rupert Street, it shone on the other side of the way. On the mantelpiece were two of those huge shells, in which the tropic deep is ever murmuring. Who that has taken lodgings in London does not know them? Who has not sometimes forgotten the commonplaces of his life in listening to those cold lifeless lips? If you take them up on their own tropic shore, they will tell you of the roar of London streets.

There were two articles in the room, however, which were peculiar to itself. The one was a human skull—to all appearance, the same as all other skulls the virtue of which has gone out of them, though it had once belonged to no common man. The second object could still less be termed an ornament than the first, although it was a picture. It depicted a woman of frightful aspect, having but one eye, and a hare-lip; she was standing up, and appeared to be declaiming or dictating; while an old cripple, at a table beside her, took down her words in writing. If you had gone all over the rest of the house—and it was a large one—you would have found nothing else remarkable, or which did not smack of Bloomsbury. It was indeed nothing but a lodging-house, and the room we have described was the private apartment of its mistress. She might consult her own private taste, she considered, in her own room, else the skull and the picture occasionally rather shocked 'the daintier sense' of the new lodgers, to whom the landlady gave audience in this apartment. She is as little like a lodging-house keeper, to look at, as can be imagined. Her cheeks are firm and fresh-coloured, her teeth white and shining, her eyes quite bright, and her hands plump. To one who knows her age, as we do—she is fifty-three—she looks like an old woman who has found out the secret of perpetual youth, but has kept it for her own use, as, in such a case, every woman probably would do. There is only one piece of deception in her appearance: her black hair, which clusters over her forehead like a girl's, is dyed of that colour: it is in reality as white as snow. By lamp-light, as you see her now, she might be a woman of five-and-twenty, penning a letter to her love. But she is, in fact, writing to her son; for it is Mrs Yorke. Writing to him, but not thinking of him, surely, when she frowns as now, and leans back in her chair with that menacing and angry look. No; her anger is

not directed against him, although he has left her and home, long since, upon an adventure of which she disapproved.

'You will gain nothing for yourself, Richard,' was her warning; 'and perhaps may wreck even my scanty fortunes.' But as we know, her son had taken his own way (as he was wont to do), and had so far prospered. She was writing a reply to the letter she had received from him from Crompton that very morning, and the task was one that naturally evoked some bitter memories.

'So he put him in the ebony chamber, did he?' they ran on. 'Ay, that was my room once. What a pretty chime that serpent-clock had! and how often have I heard it in the early morning as I lay there—alone! If it had not been for that hateful woman, I might have been listening to it now! He seems as mad as ever, by Dick's account, and, I do not doubt, as brutal and as selfish! And yet it was he that suffered, he that was wronged, he that was to be pitied! His wife was the adventuress, forsooth! who deserved all she got. O these men, these men, that treat us as they please, because they are so sure of sympathy, even from our fellow-slaves and sisters!'

She bent again to her occupation, but only for a minute. 'All this is labour in vain, Dick,' muttered she, laying down her pen; 'the luck is gone both from you and from me. If I were thirty years younger, indeed, and might have my chance once more, I would tame your father yet. I ought to have beaten his meek-faced mother out of doors; I ought to have trained his bold-eyed girl to work my will with him. She should have been my accomplice, and not hers; but now, what boots it that old age has spared me? Yonder is the only woman'—she looked towards the picture—'who has found a way to win mankind, save as their toy: my reign has been longer than that of most; but it is over.' She rose, and, holding up the lamp, surveyed herself, with a mocking face, in the round glass. 'And this was once Jane Hardcastle, was it? This was her face, and this her figure! No drunkard, staggering home through such a night as this, could take me for her now! She had wits too; and better for me had I lost them with all the rest; then I should not have the sense to be so bitter! What a future she must once have had before her, if she had but known what men were made of! It is only when too late that such women discover what they have missed. This mad Carew was tinder to a flash of these bright eyes; and the fool Yorke, except in his wild creeds, as pliant as a hazel twig. I used to think yonder woman was an idiot, because she believed in a place of torment; but she was right there.—Yes, Joanna,' she continued, apostrophising the picture, 'I'm compelled to confess that you are right; for being in hell, it is idle to deny its existence.'

She placed the lamp once more upon the table, yet did not seat herself beside it, but walked hastily up and down the room. 'To be young no more; to be poor and powerless; to have no hope in this world, nor belief in a better; to have lost even belief in one's self—is not that to be in Gehenna? I am punished for my sins, men say. Hypocrites, liars! Why is not he punished? Why is he proud, and strong, and prosperous? Sins! If Judgment-day should come to-morrow, my soul would be as pure as snow beside that man's; ay, and beside most men's! Joanna here knew that

—I suppose by inspiration; for how else should she?—What's that?

Amid the pelting of the rain, which had increased within the last few hours rather than diminished, the pulling of the house-bell could be heard. Mrs Yorke drew forth her watch—a jewelled trinket of exquisite beauty, one of the few relics of her palmy time. 'Past midnight,' she murmured, 'and all the lodgers are within. Who can it be?'

The bell pealed forth again.

She went into the hall, where the gas was burning, and unlocked the door. At the same time somebody flung himself violently against it, but the chain was up.

'Who is it?' inquired she; and it was strange, at such a moment, to hear how very soft and musically she spoke, although, when talking to herself a while ago, her tones had been harsh and bitter as her mood.

'It is I, mother,' returned the voice from outside.

She unhitched the chain, and let him in. 'I knew it would be so, Dick,' said she quietly.

Richard was pale and haggard, and shone from head to foot with the rain, which poured off his waterproof coat in streams.

'You were right, mother,' said he, as he kissed her cheek. 'No reproaches: let me have food and fire.'

She brought him socks and slippers, made a cheerful blaze, and set cold meat and spirits upon the table.

He ate voraciously, and drank his hot brandy-and-water, while Mrs Yorke worked busily at an antimacassar, in silence.

'You are not disappointed at seeing me, that's one thing, mother?'

'No: read that.' She pushed across to him the letter she had been writing to him that evening, and pointed to this sentence: 'You have my good wishes, but *not* my hopes—I have no hopes. I shall be surprised if I do not have you back again before the week is out.'

'Just so,' said the young man cynically. 'You have the pleasure, then, which your dear friend Joanna there, never enjoyed, of seeing your own prophecy accomplished; and I, for my part, have three hundred pounds to solace myself with, for what has certainly been a disappointment.'

'I am glad you are so philosophic, Dick. It is the best thing we can be, if we can't be religious. How did it all happen?'

'I scarcely know the plot (for there *was* a plot), but only the dénouement. I had offended a certain Mr Fane, toady-in-ordinary to Frederick Chandos.'

'Ah!' cried Mrs Yorke, shaking her head.

'Yes; you were right again, mother, there—the whole affair is a tribute to your sagacity, if you will only permit me to narrate it to you. I say that this fellow Fane, when walking with his patron's brother, stupid Jack, had me pointed out to him in town one day as the man who had "pulled him through," as Jack called it. Can you imagine how even such a fool as he could have been so mad? It was an act of suicide, which, so far as I know, fools never commit. Well, Fane was pretty certain of the identity of your humble servant, which he was, moreover, anxious to establish, because I had beaten him at pool, and given him the rough side of my tongue.'

'O Dick, Dick, have skilful hand and ready speech been only given you to make enemies?'

Richard laughed, and lighted a cigar.

'Well, sometimes, mother, the most prudent of us are carried away by our own genius. I am told that even you, for instance, lost your temper upon a certain occasion down at Crompton—gave a "piece of your mind" to my father, which, it seems, he took as a sample of the whole of it.—There, don't be angry: the provocation, it must be allowed, was in your case greater than mine; but then you pique yourself on your self-control! However, this Fane did hate me, and told the chaplain of his suspicions; the good parson was my friend, however, and all might have gone well, but for this oaf—this idiot Jack—coming down to Carew's in person. He could never get any coin out of "Fred," it appears, by letter; or, perhaps he couldn't "write!" But there he was in the big drawing-room when I went in last night, and Carew saw his jaw drop at the sight of me. He had not the sense to shut it even afterwards, though I told him he had made a mistake, and gave him every chance. I could have persuaded him, indeed, out of his own identity—and much more mine—only that he appealed to Fane; and then the game was up. It would have made me laugh, had I not been so savage. Carew turned us both out of the house together. His love of truth would not permit him, it seems, to harbour us. So Jack and I went to the inn, played *écarté* all night, and parted the best of friends this morning.—But I'll be even with that fellow Fane—yes; by Heaven, I will, if it's a score of years hence!'

Perhaps the light satiric tone which the young man had used throughout his narrative was little in accordance with the feelings which really agitated him; but, at all events, his last few words were full of malignant passion.

'Be even, Dick, by all means, with everybody,' observed Mrs Yorke coolly, 'but do not indulge yourself in revenge. Revenge is like a game at battledore, wherein one can never tell who will have the last hit.'

'At the same time, it is one of those few luxuries which those who have least to lose can best afford,' said Richard, with the air of a moralist.

'It is not cheap, however, even to them,' returned Mrs Yorke, still busy with her antimacassar. 'It may cost one one's life, for instance.'

'And what then?' inquired Richard carelessly.

'Nobody knows "what then," Dick. Our fanatic yonder, had one opinion; our philosopher there—she pointed to the skull—"another. Both of them know by this time, and yet cannot tell us. It is the one case where the experience of others cannot benefit ourselves.'

This subject had no charms for Richard. When we are what is vulgarly called 'in the sulks,' and displeased (if we were to own it) with the system of universal government in this world, the next seems of but little importance. There may be a miscarriage of justice (that is, a thwarting of our particular wishes) even *there*. Perhaps Mrs Yorke was aware that her son's clouded face did not portend religious or metaphysical speculation, for she abruptly changed the subject.

'And what are you going to do, Dick, now that this Crompton plan has failed?'

He did not answer, but stood with his back to the fire, moodily stroking his silken moustache.

'Richard'—she rose, and placed her plump white hand upon his shoulder—'it is very, very seldom that I ask a favour of you, but I am about to do so now. Promise me that you will never again undertake for another what you undertook for this man Chandos.'

He laughed, as he had laughed before, in bitter fashion. 'Why not? It was fifty pounds down; and apparently no risk: that is, no risk from the law, which has omitted to provide for the contingency. Next to being above the law, is surely to be ahead of it. Besides, I am really a public benefactor. Without my help, the state would already have been deprived of the services of four young gentlemen, all of excellent families. Of course, such a calling has its disadvantages. It is very difficult to obtain clients: the offer of one's valuable assistance is liable to be declined uncivilly—it requires the talents of a diplomatist to convey it without offence—still, I possess those talents. Again, undoubtedly the profession is in itself temporary, can never be permanent; but then, has not nature especially favoured me for it, after my mother's model? Shall I not be a boy at forty, and blooming at fifty-three! The idea of you being fifty-three, mother!'

As they stood together side by side, it seemed indeed impossible that this young man could be her son, far less the offspring of her middle age. She smiled upon him sadly, patting his handsome cheek. 'And is my Richard so full-grown a man,' said she, 'as to flatter, and not to grant?' It was impossible to imagine a more winsome voice, or a more tender tone.

'Nay, mother; I will promise, if you please,' said the young fellow, kissing her. 'And now, let us divide this Crompton spoil together.' He pulled out his purse, and counted the contents. 'There is Carew's three hundred, a few pounds I won at pool, and dull Jack's IOU for twenty—worth perhaps five. Come, we two are partners in the game of life, you know, and must share alike.'

'No, Dick, no,' returned his mother tenderly; 'it is enough for me to see you win.' She shut the purse, and forced it back into his unwilling hand. 'Some day, I trust, you will sweep away a great stake—though not as you gained this.'

'Ah, you mean an heiress! You think that every woman must needs fall in love with me, because you have done so, mother.'

His rage and bitterness had vanished, as though by magic; her tone and touch had spirited them away.

'Perhaps I do, dear. Go to bed, and dream of one. You must be very tired. I ought not to say that I am glad to see you back, Dick; yet how can I help it!'

CHAPTER X.—OVER THE EMBERS.

It was one of the peculiarities of Jane Yorke that she took but little sleep. The household had long retired, and she put the remains of her son's meal away with her own hands, then sat down by the fire, thinking. She had more subject for thought than most women; her life had been eventful, her experience strange. We know what her second husband—the man who repudiated her and her child—had been and was. Her first husband had been scarcely less remarkable. Leonard Yorke was a young man of respectable family, and

of tolerable means. His parents were dead, and his relatives and himself had parted company early. They were sober steady people, connected with the iron trade; a share in their house of business at Birmingham, carried on in the names of his two uncles, was the only tie between him and them, save that of kinship. They were strong Unitarians, strong political economists, strong in their rugged material fashion every way. They did not know what to do with a nephew who was a religious zealot, and thought all the world was out of joint; and they had characteristically sought for assistance in the advertising columns of the *Times*. Mr Hardcastle therein proclaimed himself as having a specialty for the reduction and reform of intractable young gentlemen, and they had consigned Leonard to his establishment! It was the best thing that they could think of—for they were genuinely conscientious men—and they did not grudge the money, though the tutor's terms were high. Jane was then a very young girl—so young, indeed, that parents and guardians would scarcely have taken alarm had they been aware of her being beneath the same roof with their impressionable charges; and she was childish-looking even for her tender years. Leonard Yorke, gentle and good-humoured, was moved with compassion towards the orphan girl, as guileless-eyed as a saint in a picture; he pitied her poverty, and, still more, the worldly character of her uncle and her surroundings. She was wholly ignorant of the spiritual matters which engrossed his being, and yet so willing to be taught. She sat at his feet, and listened by the hour to the outpourings of his fervid zeal. If she did not understand them, she was in no worse position than himself. His tongue was fluent. His words were like a lambent flame, playing with some indestructible material. His mind was weak, and devoted to metaphysical speculations—mysticisms: the *arcana celestia* of Swedenborg was Holy Writ to him. He believed in three heavens, and their opposites. Jane's endeavours were directed to make him believe in a fourth heaven. Childlike and immature in appearance, she was in character exceedingly precocious. Her intelligence was keen and practical. In very early years, it had been instilled into her that her future welfare would depend upon her own exertions, and she never forgot the lesson. Her uncle was very generous to her; but he was not the man to have saved money for his own offspring, if he had had any, and far less for his niece; he spent every shilling of his income. Little Jane would secretly have preferred to receive in hard cash the sums which he lavished upon her in indulgences; she would have dispensed with her pony, and kept a steed in the stable for herself of another sort. The rainy day was certain to come some time or other to her, and she would have liked to have made provision for it—a difficult matter for most of us, and for her impossible. She was wise enough, even then, to know how Uncle Hardcastle would have received any suggestion of a prudential nature, and she held her tongue.

In Leonard Yorke, if she did not comprehend his doctrine of 'perpetual subsistence,' she perceived a provision for her future. At one-and-twenty, indeed, he made his pupil his wife, to the astonishment rather than the scandal of the neighbourhood. They opined that it was only in the

East, or in royal families who wedded by proxy, that brides ran so young. Jane Hardcastle, however, was in reality eighteen years of age.

Yorke Brothers of Birmingham had nothing to say against the match, but they objected to a Swedenborgian partner in the iron trade, and bought their nephew at a fair price out of the business. They did not offer to take him back again, when, five years later, he became a true believer in the faith of Mary Joanna Southcott and the coming of the young Shiloh. This lady, whose portrait, with that of her spiritual amanuensis, hung in Mrs Yorke's sitting-room, had been her only rival in the affections of her husband. She had not been jealous of her upon that account, feeling pretty certain, perhaps, that the 'affinity' between them was Platonic; but she had rather grudged the money with which he had so lavishly relieved the 'perplexities' of 'the handmaid.' The amanuensis used to issue IO Us at Joanna's dictation, to be paid with enormous interest Hereafter, and Leonard Yorke was always ready to discount her paper. There was no one that subscribed more munificently than he did towards the famous 'cradle,' or looked more devoutly for its expected tenant. Even when that long-looked for 19th of October had come and gone without sign, and two months later his poor deluded idol passed away into that future with which she had been so rashly familiar, he was faithful to her yet, and kept the 'seal' which she had given him—his passport to the realms of bliss—as his dearest treasure. He had scarcely any other 'effects' by that time, for, actuated by his too fervent faith, he had been living upon the principal of his fortune; and at five-and-thirty years of age, Mrs Yorke found herself a widow, with a stock of very varied experience indeed, but not much more of worldly wealth than she had had to start with. It was hard, after half a lifetime, to resume the same semi-relative semi-dependent position under her uncle's roof which she had occupied before; but no better offered itself, and she was glad to accept it. Her natural attractions were still wondrously preserved to her; and perhaps on the occasion of her second nuptials (and the fact of her first was carefully concealed), her age excited less astonishment than her youth had done in the former instance.

Yet now at fifty-three, this woman, as remarkable for her talents as for her beauty, and who, if but for a brief period, had once stood 'on fortune's crowning slope,' found herself with little beyond a bare subsistence, which she received without gratitude from the hands of Carew. What she derived from her lodging-house, defrayed the somewhat lavish expenditure of her son Richard. She was far, however, from complaining of his extravagances. She wished him to live like a gentleman, and not to soil his hands with ignoble pursuits. She felt a genuine pleasure—only known to mothers—in gathering toilsomely together what she knew he would lightly spend. She was for the present amply repaid by the reflection, that her Dick was as handsome and well-appointed a young fellow as was to be seen in London, with an air and manner that would become a prince. It was only a question of time, she thought, when the princess should appear, be captivated, and raise him to the sphere for which she had taken care to fit him. In the meantime, it was only natural that he should enjoy himself after the manner of other

youth of great expectations. She was not averse to his dissipations, for in them indeed lay his best chance of getting acquainted with young men of this class; nor, so far, had she been disappointed. It would be surprising to many a stately Paterfamilias to learn how easily acquaintanceship, and even friendship, is contracted with his male offspring, if they be among the pleasure-seekers of the town. A young man of good address and exterior, with plenty of money in his pocket, does not require introduction. The club door soon flies open to him, but not that of the home. Richard was on tolerably intimate terms with Chandos, and other young men of the same class—but he had never been introduced to their sisters. It was here that Mrs Yorke made her mistake: she thought she understood society because she had studied two exceptional phases of it. There is nobody more short-sighted than the Bohemian, who imagines he is a citizen of the world; his round of life may have no fence in the shape of convention, yet it is often very limited, and it is outside every other.

Mrs Yorke judged of all men by her knowledge of her late husband and of Carew, and of women by herself. If it had not been for the artificialities of society, she might have been right; but they are powerful, and she knew little about them. In some matters, she was exceedingly sagacious. She did not entertain the alarm which would have been felt by some mothers, with respect to her son's morals, probably exposed to some danger by his mode of life; perhaps she had not her scruples; and yet it is strange to see how light those weigh, even with our severest matrons, when any question of 'position' is in the other scale: they will not only permit their sons to herd with *roués*, provided they are persons of distinction, but even accept them for their sons-in-law. Mrs Yorke, being daughterless, had no temptation to commit this latter crime, but she was not displeased to imagine her Richard a man of gallantry; he would in that case be less likely to fall a victim to undowered charms. 'It is not your man-about-town who sacrifices his future in a love-match,' was her reflection. On the other hand, no one knew better than herself what an easy prey to woman's wiles is a young gentleman without experience. It was for this reason, as well as because she loved to have her boy about her, that she had opposed Richard's going to Breakneckshire. She knew Carew too well to hope that he would ever take into favour a son of hers, and she distrusted the country, with its opportunities for insinuating youth into matrimonial engagements. Thirty years ago, in a fortnight of village life together, she would have backed herself to have got a promise of marriage out of the Pope; and she did not believe this to be one of the lost arts among young persons of her sex.

Thus, Mrs Yorke had strained every nerve to get the necessary funds to make town-life pleasant to her son, and yet she had not succeeded. It was not so much that he found his allowance insufficient, for he had various means of supplementing it, one of them (at which we have already hinted) a strange one enough; but the wayward fit was on him that takes so many of us in the early dawn of manhood; he was restless and eager for change, and the lessons which his mother had caused him to receive in landscape-painting furnished him

with an excuse for wandering. She had had him taught to sketch, because it was a likely sort of accomplishment to aid the scheme of life which she had planned for him; and he had taken up with the art more seriously than with anything else. But it was not in Richard's nature to apply himself with assiduity to any pursuit. Such callings as lay within his means and opportunities, he was incapacitated for by education and temper. He could not have occupied any subordinate position that required respectful behaviour—submission to the will of a master. He had had to put the greatest restraint upon himself during his brief residence at Crompton, and it was more than doubtful if he could have maintained his position there as a dependant in any case. He was gentle and good-humoured, genial and agreeable, when pleased; but he had that personal pride which is as stubborn as any haughtiness of descent, and infinitely more inflammable. It was no idle brag when he told the Crompton chaplain that he would put up with injustice from no man (if he could help it), and would repay his wrong-doer sevenfold (if he got the chance). His sense of right was very acute, especially as respected himself. All his passions were strong. Much of this might probably be said of any young gentleman of position accustomed to have his own way: lads of spirit (who can afford it) do not put up with slights; young noblemen in moments of exhalation may even 'pitch into' policemen; and generally, where there is no temptation to offend, much is forgiven. The danger in Richard Yorke's case was that his position was far from assured, while he had done some things which might prove great obstacles to his ever winning one. He had all the sensitiveness and impatience of one born to fortune—without the money.

Mrs Yorke was too wise a woman not to be acquainted with her son's character. Her love for him was very great; as great and disinterested as that with which the most religious and well-principled of women regard their offspring; but it did not blind her to his faults. Her experience of life had not led her to expect perfection; her standard of morals was of very moderate height, and Dick came fully up to it; yet she felt that her son was headstrong, impulsive, and occasionally ungovernable. He had taken his own line in respect to his dealings with Chandos and with others, in spite of her urgent entreaties. Her opposition, though fruitless, had indeed been so strenuous, that the subject was a sore one between them; and had the opportunity been less palpable, she would scarcely have ventured to revert to it that night. She had done so, however, and carried her point. He had passed his word to her that he would undertake no more such hazards, and Dick's word was as steadfast as Carew's. He was aimless and indolent; but as a mean man, who brings himself to perform some act of munificence, will effect it unsparringly, or a selfish man, 'when he is about it,' will be all self-abnegation; so, when he had made up his mind, his determination was rock. Mrs Yorke then felt sure of her son so far, and rejoiced at it. But she was disturbed about him on other accounts. Perhaps, notwithstanding her assertion to the contrary, she may have had some scanty hopes of her son's success at Crompton; or perhaps his want of it placed before her for the first time the gigantic obstacles that lay in his social path. Were the

times which she had known really gone by, wherein personal beauty, and youth, and grace of manner could win their way to any height? Or did she misjudge her own sex, while so sagacious an observer of the other? Her Dick was still very young; but his appearance should surely have done something for him even now; yet hitherto it had won him nothing but friendships of doubtful value, one of which, indeed, had just done him infinite hurt. Were girls with fortunes, then, as prudent and calculating as those who were penniless, as she had been? It did not strike her that they were infinitely more unapproachable; or rather, such was her estimation of her son's attractions, that she thought he had only to be seen in his Opera-stall to become the magnet of every female heart. Had she been mistaken altogether in her plan for his future?

As she sat over the dropping embers of the fire, while the ceaseless rain huddled against the pane without, a terrible vision crossed her mind. She saw her son, no longer young, wan with dissipation and excess, peevish and fretting for the luxuries which she herself, old and decrepit, could no longer procure for him. She even heard a voice reproaching her as the cause of their common ruin: 'Why did you humour me, woman, when I should have been corrected? Why did you bring me up to beggary, as though I had been a prince?—why have taught me nothing whereby I could now at least earn my daily bread? Why did you let me lavish in my youth the money which, frugally husbanded, might now have supported us in comfort? Why did you do all this—you who were so boastful of your worldly wisdom?' For a moment, so great was her mental anguish, that she almost looked her age—not that the picture had any terrors for herself, but upon her son's account alone. She may not have been penitent, as good folks are, but her heart was full of another's woe, and had no room left for one selfish regret. She had (in her vision) ruined both; but it was only for dear Dick that her tears fell. If the guardian angel, which is said to watch for a time by every one of us, had not given up his disappointing vigil at poor Mrs Yorke's elbow, a tremor of delight then stirred him limb and wing. Nay, perhaps in the Great Day, when all our plans shall be scrutinised, whether they have been carried out or not, this poor, impotent, fallacious one, which worldly Mrs Yorke had formed for her son's future, will stand, perchance, when others which recommend themselves better to human eyes have toppled down, because built on the rotten foundations of self. There will certainly be many worse ones. She did not propose to sell her offspring, as match-making mothers do, to evil bidders. In her doting thought, her Dick would make any woman happy as his wife. At all events, right or wrong, judicious or otherwise, her scheme must now be adhered to: it was too late to take up with any other. The vision of its failure had faded away, and she could think the matter out with her usual calmness.

The gray dawn creeping through the shutters found her thinking still; but ere the dull sounds of awakening life were heard above-stairs, and before the coming of the sleepy, slatternly maid to 'do the parlour,' Mrs Yorke had arrived at her conclusion.

The early matin prime, she was wont to say,

was always her brightest hour, but it found her, on the present occasion, white and worn, not with her long vigil, but because it was 'borne in upon her,' as poor Joanna used to say, that her son and she must part, for his own good: so soon as the spring should come, she would bid him go. London, where all was prudence and constraint, was no place to win the bride she sought for him. He should go forth into the country, where even heiresses were still girls, and win her, as troubadour of old, but with sketch-book in hand, instead of harp. Not a promising scheme, one might say; but, then, what schemes for a young man's future, who has no money, are promising now-a-days? Moreover, it could be said of it (as cannot be often said) that, such as it was, her Richard was by nature adapted for it; and—though this was a less satisfactory reflection—was adapted for nothing else.

ACROSS THE WALNUTS AND THE WINE.

In after-dinner talk
Across the walnuts and the wine.—TENNYSON.

WE had a very small party indeed at Housewife's the other night; in fact, as dear Mrs Housewife observed, it was 'no party,' for 'the Professor and yourself, you know, we do not consider as guests for whom it is necessary to put on one's company manners: we never make strangers of you;' &c. This was very nice of her, so far as the observation concerned myself, though I did not quite like Puzzleton being put in the same category as myself, who have been a friend of the house for years. The Housewives do not 'scamp' their repasts, on account of there not being a mob of people—a crime only too common, and one that makes an invitation to a 'friendly' or 'family' entertainment anything but the compliment it ought to be. It generally means 'no champagne,' and the *richauffes* of yesterday's feast; and is far worse than being asked to take 'pot-luck' on the spur of the moment, inasmuch as you have to dress as elaborately as for the best of dinners. When I say 'elaborately,' I do not refer to polished leather boots, a transparent shirt, and an extra touch of brillianine for the moustaches, for when one is 'about it,' one may as well produce the best effect of which one's material is capable. I refer to the having to put on evening attire at all. It is the ladies, of course—who always want to hold 'an exhibition of dry goods'—that compel us to do this: in a man's case, unless he is a very young one, and in 'the peacock stage,' it is almost a certain sign of a doubtful social position when he hints that a tail-coat is indispensable. Of course, one's host has a perfect right to dress as he likes, and to gratify the waiters at the club with his evening finery; but the idea of his insisting upon his guests conforming to this convention is more than ridiculous. That I, who am *not* in the peacock stage, and whose social position is above the breath of suspicion, should have to return to my home in the 'far west' to put on mourning garments, in order to do honour to Smith of the Stock Exchange, is, even in winter, preposterous; in summer, to insist upon black broadcloth is a cruelty of which none but a woman ought to be capable. Of course, I would see Smith ever so much warmer than *that*, before I would so put myself out for him; but when a lady's in the case, there is nothing for

it but to submit, and—metaphorically—kiss the rod.

Now dear Mrs Housewife, when she writes, 'Come and take a friendly dinner,' implies (Heaven bless her!) that we need not put ourselves to this abominable inconvenience; it is understood that the entertainment is not to be a festal solemnity, but a convivial meal; at which, by-the-bye, there is, almost always, better attendance, hotter plates, and more agreeable conversation than at the most ambitious 'spread.' The dinner is not kept waiting, because there is no excuse for unpunctuality on the score of 'having to get home to dress;' and the very absence of the funeral garb seems to promote mirthful ease. Still, I confess I was not quite pleased to find myself asked to meet Puzzleton *en famille*. The Professor doth, methinks, profess too much. He is always in his scientific rostrum, even in his dining-chair, with champagne before him, instead of that dreadful glass of water. He pours out his information in a flood from which I shrink appalled. There is no knowing what may set the stream flowing; the utmost care to avoid his favourite subjects is of no avail; you may be as light and frivolous as you please; and yet, like a kitten who plays with the unsuspected string of a shower-bath, you may provoke the deluge. Moreover, there is the danger in him, common to all professors, that he may one day, in a moment of friendliness, present you with a ticket for his course of lectures. What are you to do *then*?

It is sad to think how few of us there really are in the world who have the least desire to have our minds improved, and the older we grow the less we like it. It revives those terrible Saturday nights of childhood, when we were rubbed so viciously with a rough towel, and had one's hair brushed the wrong way. And here let me offer a piece of advice to the young. Never be persuaded by vanity, benevolence, or the wishes of friends, to give any kind of entertainment for the public benefit in the form of a lecture. If you have been up the highest mountain, or down the deepest mine; or have crossed the Atlantic in a coracle; or passed the season at Timbuctoo; or been the sole survivor of a shipwreck—reserve your narrative of that exploit for private parties, where it will serve you again and again; and avoid public exhibitions of yourself. You may mean no harm; you may have even been asked to do it for the sake of charity; but be firm in refusal, or you will rue it. Be neither seduced by the simplicity of a Penny Reading in a barn, nor by the magnificent idea of a theatre retained solely upon your own account from two till five in the afternoon. Whether Arcadians or Burlington Arcadians are your promised audience, decline—oh, decline, as you value future peace—the proffered honour. For, when you have once compelled other persons to listen to you, it is a point of honour—*noblesse oblige*—that you also should listen to them: you are henceforth one of a band whose mission it is to rally round every fellow-creature who has anything to state to the public at large.

I was at a nice little dinner the other day, where I discovered to my consternation and surprise that four of the party were pledged to go and hear Professor Sackbut at the Hall of Science in the evening. 'Why, why?' inquired I wildly. 'Are you sober, are you sane? Do you mean to say that you will leave your Havanas, and

the pleasant talk of the smoking-room, for'— I didn't like to say what I thought of Sackbut; but my intelligent countenance conveyed my meaning. Then, slowly and sadly, each confessed his shame. The unhappy four had all been guilty of the indiscretion of having provided 'an hour's intellectual entertainment' for the public. One had been to Palestine, and explored the drains; one had been to Spitzbergen, and picnicked in the hut occupied by the 'four Russian sailors'; one had got the Victoria Cross—with, unhappily, an anecdote attached to it; and one, about whom there was nothing more remarkable than a physical resemblance to his cousin, had given a lecture in public in consequence of having been mistaken for that relative. But they were all tarred with the same brush as regarded their obligation to hear Sackbut.

'If persons in our unhappy condition refuse to go,' observed one plaintively, 'who can be expected to attend?'

They accordingly departed during the progress of the meal: victims to duty and dyspepsy.

'Have you not observed,' remarked Bitter Aloes, as we discussed the matter over our cigars, 'that clergymen, even when travelling for pleasure, and away from their own parishes, always go to hear sermons? The phenomenon is now explained. It is not self-sacrifice (as has been supposed), but *esprit de corps*.'

Beware, therefore, my young friends, if you must needs do anything very remarkable, of making any public declaration thereof. Be modest, and shun the platform and the glass of water. For my own part, I have always reserved my experiences (however striking and noteworthy) for the entertainment solely of my private friends. Still, no amount of wariness can prevent one's being a recipient of an admission-card to a Course of Lectures, and—*timeo Danaos et dona ferentes*—I feared Professor Puzzleton accordingly. Against a man armed with such a weapon (as an admission-card), neither boldness nor finesse avails; the Scientific, too, are always remorseless, and spare neither sex nor age.

Such were my sad reflections upon discovering that I was to share the family meal at Housewife's with the Professor only; though, as it turned out, all my apprehensions were groundless. Alarm took possession of me once or twice—as when the Professor discovered a shrimp among his whitebait, and evinced a tendency to pisciculture—but if the desire to dilate upon this topic arose within him, it was quenched in the claret cup, most opportunely interposed, and out of which I began to doubt whether his intellectual features would ever emerge. And this I will say for the Professor, that he takes his liquors like a man, and has no fanciful views against mixing them; nor did I ever see him do greater justice to Housewife's cellar than upon the present occasion. He was doubtless exhilarated, to begin with, at having been invited to make one of this *partie carrée*; but I am well convinced that there was a moment, toward the close of the entertainment, when the Professor could have been prevailed on to sing a song. He had not, however, been invited on account of his musical talents, but (as I presently discovered) in order to deliver his views upon education with respect to Housewife's son and heir, of whom I have the honour to be godfather.

It was, in fact, a sort of family council, with a Professional to assist at it; and the council-table was Housewife's well-furnished mahogany. Imagine us, then, partaking of the great 'American domestic institution'—not slavery, of course, but sherry-cobler—and enunciating our several opinions—in the manner affected by the late Lord Palmerston, and also by rooks, building—with a straw in our mouths. Housewife, calm and smiling, though inwardly deeply interested in the fiat of the Professor; our hostess nervous, but even kinder in her manner than usual, because her boy was in her mind; myself amused and interested; and Puzzleton unexpectedly tremendous. The Château Yquem had opened his heart, and made him as frank as the morn. I never heard so much truth in my life from any constituted authority.

'As to Tom's going to school, my friends,' observed he cheerfully, 'there is plenty of time before the young gentleman: he is but seven'—

'And a half,' interposed Mrs Housewife with importance.

'Rising eight,' remarked her husband, affecting to treat the matter with jocularity.

'In such a case, the fraction may be disregarded,' continued the Professor, with a wave of his hand, and a momentary return to his glass-of-water manner: 'let us hope, before he gets much older, that the bubble of Education may have burst.'

If a shell had burst immediately beneath the dinner-table, it could scarcely have produced a greater consternation than this remark.

'My dear Professor,' ejaculated Housewife, 'Education a bubble?' And he looked at his wife with an expression that it was easy to translate into: 'You had better repair to the drawing-room, my dear, for Puzzleton is drunk.'

'I am quite aware of what I said,' resumed the Professor with dignity. 'I have long entertained the impression, without giving it utterance; but your hospitality has been such as to render silence beneath a crime; I cannot deceive you; I cannot doom that innocent boy of yours to suffer years of aorist and middle-voice—oh, my goodness, what confounded rubbish it all is!' exclaimed the Professor, mopping his face with the napkin, and puffing as though he would have blown the Greek Grammar into space. It was evident that the honest fellow was upon the rack of conscience, and could not choose but speak.

'You are speaking, of course, with reference to classical education only,' suggested Housewife, with the air of a man who cannot believe his own ears.

'No, sir; I am not!' roared the Professor. 'It is Classical Education (so called), however, that most awakens an honest indignation, because it costs so much; because it is the superstition of this country; the Juggernaut under whose wheels our middle classes sacrifice the fortunes of their children. They offer their substance to this idol, in the expectation that he will return it to them four-fold; and in nineteen cases out of twenty, he never returns to them one brass farthing.'

'One brass farthing,' ejaculated the host; 'why, good heavens! there have been thousands of pounds, then, thrown away upon me at school and college! My good father told me that a good education was all he could give me, and how he pinched and toiled to compass it, poor soul!'

'Of course,' replied the Professor quietly, 'a good education was his fetish; your patrimony was

sacrificed to Mumbo Jumbo. It is only by the aid of such superstition—and its own rottenness—that the system is kept afloat. The proportions of the imposture are so gigantic that they affect honest simple folk with veneration, like some sculptured deity in Elephanta. Look at the prices: two hundred and fifty pounds a year for a child at Eton; two hundred at Harrow; a hundred and fifty pounds at Rugby! There are more than fifteen hundred boys at those three schools, many of them maintained there with extreme difficulty. How many of their fathers, think you, will ever see their money back? I can tell you to a nicety. Thirty-seven and a half, sir, exactly. That is the proportion of those boys who obtain fellowships at the university.'

'But in other ways?' pleaded Housewife.

'There is no other way, sir, by which a classical education can enable a lad to recoup himself. Scholarships are mere nothings: they are the insignificant prizes by which the conductors of this huge lottery lure the public into their toils: the fortunate drawers get a little back of their own money, and that is all.'

'Well, I didn't get a scholarship myself,' said Housewife modestly; 'but I always understood it was a great assistance to a lad. Sixty pounds a year is a nice little sum'—

'Yes; especially when you have subscribed one hundred and fifty pounds per annum for ten years for the chance of getting it. Now, what *did* you get, my dear sir, out of this well-meant legacy of your excellent parent—out of this first-rate education for which he paid such a fancy price?'

'Well, upon my life,' said Housewife, 'it is rather difficult to say. There is nothing tangible on which one can lay one's finger. We must consider the indirect advantages.'

'We must indeed,' replied the Professor drily; 'you mean the civilising effect, and the immense assistance which the knowledge of the dead languages affords in the study of modern tongues.'

'That's it,' cried Housewife delightedly; 'it's the Tone and the Roots.'

'Let us take them in their proper order, my good sir. Did you get the roots?'

Housewife moved uneasily on his chair. 'Yes, of course I did,' said he doggedly.

'You were then among the most fortunate,' said the Professor, eyeing him keenly. 'The proportion of those who come from the public schools with any real philological'—

'I don't know exactly what you *mean* by the roots,' interposed Housewife peevishly.

'It was your own expression, my good sir, not mine. I am quite sure you don't know what *you* mean by it; and the possession of "the tone" ought, I think—if you will forgive me for saying so—to have prevented you implying that you did. There is no occasion for a blush, however: there is a certain magnanimity in your attempted defence of a system under which you have suffered pillage, which I admire. "Never foul your own nest," is a homely British proverb which has proved the bulwark of many a rotten institution. In consequence of it, the assault has always to be made by outsiders, who, of course, contend at a disadvantage.'

'You are an outsider yourself,' observed Housewife grimly.

'If you mean anything, my good sir, by that observation,' said the Professor quietly, 'you mean

to imply that my parents were not rich enough to send me to Eton. Your observation is just. My education cost me altogether—I was brought up at a free school in Scotland—about six-and-thirty pounds.'

'And yet you know everything!' ejaculated Mrs Housewife with astonishment.

'I believe I know everything, madam, except heraldry,' observed the Professor modestly; 'and that I don't want to know. The simple fact is, that no man learns anything who will not teach himself. Now, to give the devil his due, the whole system of classical education is built upon the idea that it will enable persons to do this. I don't say whether that idea is right or wrong; what I do affirm is, that not one boy out of twenty is the least likely to avail himself of such an advantage. Not one boy out of twenty leaves a public school with any real knowledge of the subject on which he has wasted his time, and his father his money. To the multitude, Greek and Latin will always be *caviare*; the study of grammar is loathsome to a healthy mind; and as for the attractive force of the beauties of classical literature, I am certain that, if an introduction to Shakspeare himself was to reward his exertions, it would not excite the ordinary boy one whit. What do *you* know, my good sir, for instance, or care, about Plato or Æschylus? Even of Horace, what is left to you, after all your father's mistaken pains on your behalf, but a few stale quotations?'

Our host was silent; tickling the knobs of ice in the tumbler with his straw.

'I am sure my husband would never have had such gentlemanly manners unless he had been at Eton,' said Mrs Housewife resolutely.

'We cannot tell how much of that is due to the ameliorating influences of the most charming of women,' observed the Professor gallantly. 'As for your Tom, he is a young gentleman already. That the vulgar rich should wish to send their sons to Eton for what is not to be got at home, is quite intelligible; but with you it is quite otherwise. It would be sending to Covent Garden for the flower that grows beneath your own window.'

'But what the deuce is Tom to learn?' inquired Housewife earnestly.

'Reading, Writing, and Arithmetic,' answered the Professor composedly. 'These primary accomplishments—though by no means so generally acquired as is imagined—are to my mind indispensable. The key of all other knowledge is placed in the hand of him who possesses these, if he only choose to use them. If he does not choose—and the great probability, my dear madam (as I could prove to you by figures), is, that Tom will *not*—the information he has gained will at least do no harm to himself or others. He will be disqualified from quotation; and he will have saved you, by the time his university course would have been ended (had you been fool enough to send him there), about two thousand pounds. He will read correctly, and therefore with pleasure to himself; he will write so that his friends can decipher his meaning at a glance; and he will understand the Rule of Three. How many, think you, of our expensively brought-up acquaintances are masters of those three simple arts?'

'Why, I have learned the Rule of Three myself!' exclaimed Mrs Housewife.

The Professor smiled good-naturedly. 'It is

quite possible, dear madam. There are about three women in all England who understand the theory of proportion, and I do not say but that you may be one of them. But you do not understand it now? Just so. It was taught you at school, you will say, and you have forgotten it. You are mistaken; it is impossible to forget the rule of three, and impossible—at a girls' school—to be taught it. If there is a greater imposture than our system of education for young gentlemen, it is that in vogue for our young ladies.

'But what are we to do with our Tom? If we are not to send him to school, where are we to send him? What are we to do with him till he grows up?'

'That, my dear madam, is the question which lies at the root of the whole matter, and which, unhappily, I cannot answer for you. The desire to shirk our obligations with respect to our own offspring, is very natural, if not exactly commendable. We wish to be saved personal bother, and the nuisance of "a lot of boys in the house." It was to meet this exigency that "education" was invented. School saves the father trouble, just as the perambulator saves the nurse. But then our perambulators don't cost their weight in gold. It is the fancy price this luxury Education fetches, of which I complain; a price out of all proportion to its advantage.'

'Well, what would you do with a Master Thomas Puzzleton?' asked Housewife. 'Come.'

'If I had a son of my own, I should fix upon some pursuit for his future, and adapt him for it from the first by all means in my power. But he should be troubled with no other sort of work, *unless he liked it*. (I am speaking of the average boy, who does not like it, and who has no particular bent of mind.) The literature of his own country would be always open to him, because he would have the key of it; and if that did not interest him, I am sure the treasures of antiquity would in vain be spread before him. We cannot make a silk purse out of a sow's ear, but we may spare ourselves the very heavy expenses at present incurred in the attempt to carry on that species of manufacture. In the case of a son of mine, he would have to gain his own livelihood, and I could not afford to see him as helpless to do that at the end of his curriculum (even if it had cost me nothing) as at the beginning, which was *your* case, I fancy, my good sir. You did not find yourself adapted for anything in particular, I believe, when your father's legacy had been paid in full?'

Our host shook his head and shrugged his shoulders.

'But how, then, did you make your heaps of money, Housewife?' inquired I with interest.

'My dear husband was fortunate in his business speculations,' interposed the hostess hastily.

'I drew a great prize in the matrimonial lottery,' said Housewife smiling.

'It is easy to see *that*,' observed the Professor with gallantry, and quaffing a bumper of Lafitte. 'May your Tom be as fortunate.'

But our hostess was not to be so easily conciliated. She believed in public schools, and perhaps did not like them the less because they were expensive.

'I think our Tom will go to Eton, Professor,' said she slowly, 'after all.'

'I have no doubt he will, my dear madam, since his mother wishes it. There are two strongholds in

possession of the ruling educational powers. They have all the ladies with them; and the clergy are bound to the same side by their own interests, since half the parsons are also schoolmasters. It is very difficult for intelligence to get fair-play against such opponents.'

It was plain that the Professor's back was up; our host supplied him on the instant with a huge cigar, with the double purpose of mitigating his wrath, and procuring the absence of his antagonist.

Mrs Housewife rose with dignity. 'We are very much obliged to you, Professor, for your kind advice,' said she. 'So reading, writing, and arithmetic are all that is necessary for a young gentleman's education! The rest is nought but leather and prunella.'

'I did not say anything of the sort, madam.'

'You said that anything more was useless to the ordinary boy.'

'Just so; and, I added, most exorbitantly charged for.'

'And suppose this Tom of yours—for mine will learn Greek and Latin like a gentleman—should refuse to study even 'the three Rs.' What would you do then?'

'I should teach him the Use of the Globe, madam, by sending him to a sheep-farm in Australia.—And I'd teach him one more thing,' added the Professor, as the door closed behind our hostess, 'which I was an old fool not to have taught myself.'

'What is that?' asked Housewife, who, with myself, had been enjoying beyond measure the late passage of arms.

'Never to argue with a woman,' said Puzzleton sententially.

'It is the school of matrimony that teaches *that*,' answered Housewife drily.—'Pass the claret.'

THE MONTH:

SCIENCE AND ARTS.

A BRILLIANT Commemoration week at Oxford, with the Chancellor discoursing in apt and eloquent Latin to the large group of newly-made Doctors of Civil Law—the distribution of prizes to the students at University College, London, by Bishop Temple—the sittings of the Commission for inquiring into the condition and claims of scientific education, are facts which seem to enhance the importance of the question now before parliament, and to the public interest in national education. Since the debates began in the House of Commons, public opinion on the great question has ripened to a remarkable extent, and it seems pretty certain that the twenty thousand existing schools of whatever 'denomination' will be made use of, and with these and the new schools which are to be established, there will be education for every child throughout the land. How many high and beneficent aspirations will then be gratified; and it will be especially interesting to the observant philosopher to note whether crime and immorality diminish with the decrease of ignorance and the increase of knowledge.

In the United States there is a growing conviction, scarcely shared by us at home, that women

are more successful teachers (even of boys' schools) than men; and the educating of young men and young women together in the same college has succeeded beyond expectation.

Astronomers have begun their preparations for observing the total eclipse of the sun in December next. The Royal Society and the Astronomical Society have each appointed a committee to make proper arrangements, and have set apart five hundred pounds for the purchase of instruments and other expenses. Special pains will be taken to insure that photography, spectroscopy, and polarisation shall be employed to full advantage in observation of the several phenomena; and considering the many interesting questions that have grown up of late years with regard to the constitution of the sun, it is hoped that some of them will be answered by the observations about to be made. The totality of the eclipse falls on the Mediterranean, so that the three parties of observers who are to go out to Gibraltar, to Algiers, and to Sicily, will, while working for science, have the pleasure of passing their Christmas in a warm climate. The assistance of government will be asked, and will probably be given in the conveyance by ship of the parties of observers to their several stations. Hence it may be anticipated that the coming eclipse will be more effectually scrutinised than any preceding.

Though not much talked about, the transit of Venus, to take place in 1874, is kept steadily in mind by those interested in the phenomenon. The Astronomer-royal makes known in his annual Report that government have 'answered liberally' to his appeal for pecuniary aid; that he has ordered telescopes, clocks, and other instruments sufficient to equip five observing stations, and that the question is actively discussed as to whether it will be feasible to use photography or spectroscopy in the observations. The observing stations are to be chosen in the southern hemisphere, some of them in high antarctic latitudes, which, as we may anticipate, is a reason why government should contribute means of conveyance when the time arrives. So much preparation for an observation of the passage of Venus across the sun's disc may appear to some minds a waste of money and labour; but a transit is of high importance in astronomy. It gives a measure of the sun's distance, of the speed of light, and can be made available for the determination of important questions in natural philosophy. Instruments are now so excellent that we may hope for the perfection of accuracy in the observations.

We hear that a method of condensing telegraphic messages, and at the same time of keeping their purport secret from all persons except the sender and receiver, has been devised by Mr J. Gall of Kingston, Jamaica (son of a well-known Edinburgh publisher). He has drawn up a lexicon of telegraphy, and any one wishing to send a message has but to choose from this lexicon a single word, according to the nature of the message. In this word he conveys his whole meaning to his friend or correspondent; but to the telegraph clerk, or any one else, it is an impenetrable secret. The

friend or correspondent is of course aware of the principle on which the message is to be interpreted, and he alone can resolve the meaning. The combinations of the method are so numerous that, as we are informed, Mr Gall himself would be unable to discover the key which other persons had agreed to use out of his own lexicon. Another advantage of this method is its economy. When a long message can be contained in one, two, or three words, the saving will be great as regards both money and time. The pre-arrangement of messages is described as remarkably easy; hence there seems no reason why this telegraph lexicon should not be published for general use.

In a former *Month*, we mentioned the cheap railways and economical rolling stock which, by Mr Fairlie's method, could be rendered available. A trial was made the other day on the Festiniog Railway in Wales, in presence of engineers from many parts of the world, which seems to settle the question. The gauge of the railway is 1 foot 11½ inches; the locomotive, running on a 'double bogie,' weighs 19½ tons, and it drew a train weighing 114 tons from Portmadoc to Festiniog, fourteen miles, all the way up hill. There were times when the train was running on five curves at once, and without difficulty, owing to the bogies, which yield easily to every bend. Here, then, is an indication of the kind of railway suited to hilly districts which have passengers or merchandise of any kind to send down to the plains. There is room for such in England, while in Canada and India there are wide regions that might be benefited by the light narrow railways, with locomotives and carriages to match.

While this experiment is making in Wales, a further demonstration has been made in Scotland that useful steam-carriages can be constructed to run on common roads. A steam-omnibus, built on Thomson's plan, with broad india-rubber wheel tires, has been plying between Edinburgh and Leith; and one of the locomotives drew two guns, weighing five tons, at the rate of six miles an hour.

In a communication to the Lombard Institute of Sciences at Milan, Professor Mantegazza states, as a result of experiment, that vegetable oils act as preservatives from malaria. He finds reason to believe that flowers exhale ozone in large quantities, and of a quality superior to that produced in other ways. The exhalation, as might be anticipated, takes place mostly during sunshine, and becomes very small in amount at night. If the professor is right in his views, the cultivation of aromatic plants, and the use of vegetable scents, should be particularly beneficial in marshy districts, where the air is unwholesome. He recommends that labourers who work in swamps and rice-fields should carry about them a small quantity of spirits of turpentine, or some other powerful aromatic. In Holland and the marshy regions of the south of France, it is believed that plantations of sunflower will preserve a neighbourhood from intermittent fever.

With characteristic enterprise, the Americans have sent exploring parties into their newly acquired territory, Alaska, and have ascertained that the river Yukon is one of the longest on the North American continent, and is at the same time the only important stream in the new country. The river was explored by a party of twelve men in a small steamer under the command of Captain

Raymond of the army engineers. They succeeded in reaching Fort Yukon, near the head of the river, and returned in safety. The Indians of the interior are described as inferior to those of the coast, and very cowardly; and the extent of useless land is prodigious. But for complete particulars of the expedition we must wait for one of the excellent reports of surveys and explorations made from time to time by the United States' government.

That diamonds as well as gold can be had for the searching is now confirmed by every mail from the Cape of Good Hope, as well as from Australia. At the diamond-diggings on the banks of the Vaal proper, organisation has been initiated, and order is maintained by a Vigilance Committee. A diamond worth fifteen hundred pounds was 'swopped' by the native who found it for a wagon; and besides diamonds, a turquoise and a few rubies had been discovered. From the east coast, Zanzibar, the news is that eighty thousand persons had there died of cholera; and that the disease having come from the interior, was retreating in the same direction. We trust that no harm will befall Dr Livingstone or Sir Samuel Baker's expedition from this formidable danger.

Dr Rattray of the royal navy has communicated a paper to the Royal Society 'On some of the more important Changes induced in the Animal Economy by Change of Climate, as from Temperate to Tropical, and the reverse.' Experiment has shewn that respiration is slower in warm air than in cold air; but we do not yet fully know what happens in the tropics, where great heat, rarity of air, and moisture are combined, nor whether the quantity of air there respired is greater or less than in temperate climates. Some light has been thrown on these questions by Dr Rattray, who made his experiments on some of the officers and crew of a vessel during a voyage to Brazil and back. In England, at starting, the average capacity of the chest for air was found to be 256 cubic inches; in the equatorial doldrums, temperature 78 degrees in the shade, the capacity increased to 280 inches; and on the return voyage in the same region, the heat being then 83 degrees in the shade, there was a further increase to 286½ cubic inches. It would be interesting to ascertain whether this increase would become permanent on prolonged residence in a tropical climate; but on returning to England, there was an average decrease of 26 inches, the temperature being the same as at starting—namely, 65 degrees.

On passing from the doldrums to the cool dry air of the north-east trades, there was a sudden decrease of from eight to fifteen inches; and a negro, whose chest had a capacity of 210 cubic inches in the tropics, found himself reduced to 185 in an English winter.

Here Dr Rattray remarks that a knowledge of this law is evidently of practical application in preventing mistakes in the spirometric diagnosis of certain lung diseases. Thus, the capacity of the chest of an individual debilitated by residence in the tropics, and weak-chested, being, say, 250 or 270 cubic inches, he might be supposed to have contracted incipient phthisis on reaching England in winter labouring under catarrh, and with a reduction in the capacity of his chest of from 25 to 35 inches. And, on the other hand, a consumptive patient on arriving in the tropics might be supposed restored to health because he could inhale

a greater volume of air. A similar mistake might also be made in England on comparing the amount of summer and winter respiration.

These results, in which the lungs were tested to their full capacity, are borne out by ordinary breathing under similar circumstances. More air is taken into the lungs in warm weather than in cold. More blood flows to the skin and the liver in the tropics than in temperate climates; consequently, a less quantity of blood flows to the lungs, and they have more room for air. It is owing to this that the lungs of Europeans who die in a tropical country are lighter than those of Europeans who die at home.

These facts afford an explanation of the way in which a tropical or subtropical climate checks incipient phthisis, or inflammatory action of the respiratory apparatus. Residence in a warm atmosphere is followed by a decrease in the quantity of blood in the affected lungs, by diminished activity in the vital processes carried on therein, by facilitated respiration, and, above all, by diminished lung-work, from vicarious action of the physiologically excited skin and liver. The air being less irritant, there is less tendency to inflammation, and those bronchial attacks which are so apt to break up old tubercle and deposit new.

We thus see why it is that a warm climate is beneficial to consumptive patients; and why those who cannot afford to travel should live as much as possible in an atmosphere kept at the required temperature by artificial means. Let it be understood that by keeping the lungs from cold, they are kept from overwork, and have more room for air, and consumption will be mitigated, if not prevented or cured.

AN EARLY SUMMER MORNING.

Lo! how the mists, that until now have curled
About the emerald vales and mountains dun,
Roll off the awakened, or awaking, world,
Chased by the beams of the uprising sun.
A while, and the sweet sunlight freely falls
In silvery brightness over all the land;
And low-roofed cots and stately terraced halls
All grandly glowing in the splendour stand.
Groups of gay children, sallying out in strings
Along the lanes, make musical the air,
Mocking the cuckoo-bird. The skylark sings,
A speck in far blue space; while here and there
Fleet swallows skim, with wings for sails and oars,
O'er billowy grass that beats on hedgerow shores.

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